

Electrochemical roughening:

- Disposing region of work piece to be roughened proximate to a counter electrode, subsequently, workpiece and counter electrode are together disposed in an electrolyte
- Electric potential with current flow applied between workpiece and counter electrode to roughen the region of the work piece to a desired roughness

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- <https://www.jove.com/v/59553/electrochemical-roughening-thin-film-platinum-macro>
- Watched video on electrochemical roughening and it seems very hard to do given our resources

Sand paper for steel

- Silicon carbide sandpaper- synthetic paper, waterproof, self-sharpens on harder materials, making it best sandpaper for metal and plastic, ideal for polishing
- Ceramic sandpaper- extremely hard and durable, best for rough sanding, ideal for power sanders, more expensive
- Wood sandpaper- when using extremely rough coarse grits, you can scratch metal
- Emery paper- replaced by silicon carbide sandpaper
- Zirconia Alumina- 24-32 grit might be able to pierce through and give the grit we want

Laser structuring

- Extraordinarily difficult to achieve, good on copper and aluminum, not very successful for use on stainless steel which is our output shaft

Chemical Etching

- Commercially purchased acids and resists to etch surface, don't know how well it would work for our application as I have only seen it done to sheet metal, but does work for stainless steel